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EXAMINER	
MILIA, MARK R	
ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/045,511	Applicant(s) LESTER ET AL.	
	Examiner Mark R. Milia	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-23 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-20 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 11/9/05 and has been entered and made of record. Currently, claims 1-23 are pending.

Claim Rejections - 35 USC § 112

2. Applicant's arguments regarding the rejection of claims 1, 2, 5, 7, 9-15, 18, and 19 for lacking antecedent basis are persuasive. Therefore the rejection has been withdrawn.

Response to Arguments

3. Applicant's arguments filed 11/9/05 have been fully considered but they are not persuasive.

In response to applicant's arguments regarding the rejection of claims 1-8 and 10-20, more specifically claims 1, 10, 12, and 19, wherein on pages 9-13, the applicant asserts that the combination of Barry and Utsunomiya do not disclose receiving a request to print a document, the request and document being received by the printing device, communicating, to each of one or more additional printing devices, at least one

of the one or more blocks, and using, at the printing device, the received print-ready bits to print the document. The examiner respectfully disagrees as the combination of Barry and Utsunomiya does disclose such features. Particularly, Barry discloses receiving a request to print a document, the request and document being received by the printing device (see Fig. 1 and column 3 line 9-column 5 line 60). As shown in Fig. 1a, a print job is sent to the printing device, as shown by the print job input "100". Elements such as a print driver "102", print spooler "108", rip engine "150", and print engine "150" are evidence supporting Fig. 1a as depicting a print device. Barry also discloses that portions of a print job are communicated to separate ripping and printing engines (see Fig. 1), which is analogous to communicating, to each of one or more additional printing devices, at least one of the one or more blocks. Utsunomiya discloses sending portions of a document to multiple printers. It would have been obvious to one of ordinary skill in the art to combine Barry and Utsunomiya to arrive at the limitation of communicating, to each of one or more additional printing devices, at least one of the one or more blocks. Barry further discloses using, at the printing device, the received print-ready bits to print the document as shown in Fig. 1b. Distributor "116" sends portions of a document to different ripping and associated printing engines to print out the document.

4. Therefore, the rejection of claims 1-8 and 10-20, as cited in the previous Office Action, is maintained and repeated in this Office Action.

5. Applicant's arguments, see pages 13-14, filed 11/9/05, with respect to claims 21-23, more specifically claim 21 have been fully considered and are persuasive. The rejection of claims 21-23 has been withdrawn.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1-6, 10, 12-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6825943 to Barry et al. in view of U.S. Patent Application Publication No. 2004/0042042 to Utsunomiya.

Regarding claims 1 and 10, Barry discloses a system implemented in a printing device, the method comprising: receiving a request to print a document, the request and document being received by the printing device (see Fig. 1a and column 3 lines 13-15), partitioning the document into one or more blocks (see Fig. 1, column 3 lines 48-54, column 4 lines 30-40, and column 5 lines 8-60), communicating, to each of one or more additional processing devices, at least one of the one or more blocks (see Fig. 1, column 5 lines 8-60, and column 13 line 63-column 14 line 42), receiving, from the one or more additional processing devices, a set of print-ready bits corresponding to the blocks communicated to the one or more additional processing devices (see Fig. 1, column 5 lines 8-60, and column 13 line 63-column 14 line 42), and using, at the printing device, the received print-ready bits to print the document (see Fig. 1b, column 8 lines 52-58, and column 8 line 65-column 9 line 10).

Barry does not disclose expressly communicating one or more blocks to one or more printing devices.

Utsunomiya discloses communicating one or more blocks to one or more printing devices (see Fig. 1 and paragraphs [0015] and [0018]).

Regarding claims 12 and 19, Barry discloses a system implemented in a printing device, the method comprising: receiving, one or more portions of a document to be printed at the printing device (see Fig. 1 and column 5 lines 8-60), converting the one or more portions to a print-ready format (see column 5 lines 8-60), and returning the one or more portions in the print-ready format to the other printing device for printing at the other printing device (see column 8 lines 52-58 and column 8 line 65-column 9 line 10).

Barry does not disclose expressly the use of multiple printing devices to process one or more portions of a document.

Utsunomiya discloses the use of multiple printing devices to process one or more portions of a document (see Fig. 1 and paragraphs [0014], [0015], and [0018]).

Barry & Utsunomiya are combinable because they are from the same field of endeavor, dividing print jobs for parallel processing.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of multiple printing devices to process blocks of a print job as described by Utsunomiya with the system of Barry.

The suggestion/motivation for doing so would have been to reduce the printing time of a print job (see paragraph [0004] lines 2-5 of Utsunomiya).

Therefore, it would have been obvious to combine Utsunomiya with Barry to obtain the invention as specified in claims 1, 10, 12, and 19.

Regarding claim 2, Barry and Utsunomiya disclose the system discussed in claim 1, and Barry further discloses converting, at the printing device, at least one of the one or more blocks into print-ready bits (see Fig. 1, column 5 lines 8-60, column 8 lines 52-58, and column 8 line 65-column 9 line 10).

Regarding claim 3, Barry and Utsunomiya disclose the system discussed in claim 1, and Utsunomiya further discloses wherein receiving the request comprises receiving the request to print the document from a computing device via a network (see Fig. 1 and paragraphs [0014] and [0015]) and Barry further discloses communicating at least one of the one or more blocks comprises communicating at least one of the one or more blocks to each of one or more additional printing devices via the network (see column 13 line 63-column 14 line 42).

Regarding claim 4, Barry and Utsunomiya disclose the system discussed in claim 1, and Barry further discloses determining a value P for a page of the document having a particular page number (*PageNumber*) based on how many printing devices (*NumPrinters*) are in the one or more additional printing devices by performing the calculation, $P = \text{PageNumber} \bmod \text{Numprinters}$, and communicating the page to the P th printing device of the one or more additional printing devices (see column 3 lines 42-54 and column 16 lines 44-53).

Regarding claim 5, Barry and Utsunomiya disclose the system discussed in claim 1, and Utsunomiya further discloses identifying a plurality printing devices to which the printing device is communicatively coupled (see Figs. 1 and 2 and paragraphs [0014], [0015], [0018], and [0019]) and selecting one or more of the plurality of printing devices

as the one or more additional printing devices to which the one or more blocks are communicated (see Fig. 2 and paragraphs [0018], [0019], and [0024]).

Regarding claim 6, Barry and Utsunomiya disclose the system discussed in claim 1, and Barry further discloses wherein at least one of the blocks includes a different number of pages of the document than the other blocks (see column 12 line 58-column 13 line 21).

Regarding claim 13, Barry and Utsunomiya disclose the system discussed in claim 12, and Barry further discloses wherein returning the one or more portions comprises returning, in the print-ready format, each page of each of the one or more portions to the other printing device as soon as the print-ready format for the page has been generated (see column 8 lines 52-58 and column 8 line 65-column 9 line 10, reference shows that once the portion of the document has been RIPPed it is sent to the merging unit which is analogous to the claim limitation).

Regarding claim 14, Barry and Utsunomiya disclose the system discussed in claim 12, and Barry further discloses wherein returning the one or more portions comprises returning, in the print-ready format, each portion to the other printing device as soon as the print-ready format for the portion has been generated (see column 8 lines 52-58 and column 8 line 65-column 9 line 10, reference shows that once the portion of the document has been RIPPed it is sent to the merging unit which is analogous to the claim limitation).

Regarding claim 15, Barry and Utsunomiya disclose the system discussed in claim 12, and Barry further discloses wherein returning the one or more portions

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comprises returning, after each of the one or more portions has been converted to the print-ready format, the one or more portions to the other printing device (see column 8 lines 52-58 and column 8 line 65-column 9 line 10, reference shows that once the portion of the document has been RIPed it is sent to the merging unit which is analogous to the claim limitation).

Regarding claims 16 and 20, Barry and Utsunomiya disclose the system discussed in claims 12 and 19, and Barry further discloses wherein converting the one or more portions to a print-ready format comprises using a portable document format (PDF) interpreter to convert each of the one or more portions to print engine-ready raster bits (see column 5 lines 8-60, column 9 line 33-column 10 line 5, and column 10 lines 23-37 and 55-63).

Regarding claim 17, Barry and Utsunomiya disclose the system discussed in claim 12, and Barry further discloses wherein receiving the one or more portions comprises receiving both the document and an indication of the one or more portions in the document (see column 12 line 58-column 13 line 2).

8. Claims 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry and Utsunomiya as applied to claims 6, 10, and 21 above, and further in view of U.S. Patent No. 5913018 to Sela.

Barry discloses determining a number of pages to be included in the block communicated to a particular additional processing device (see column 12 line 58-column 13 line 21).

Barry and Utsunomiya do not disclose expressly sending a block of a test document to each of the one or more additional printing devices, measuring, for each of the one or more additional printing devices, a time elapsed between sending the block to the printing device and receiving print-ready bits corresponding to the block from the printing device, and determining a number of pages to be included in the block communicated to a particular additional printing device based on the measured time for the particular additional printing device relative to the measured times for the other additional printing devices.

Seal discloses sending a block of a test document to each of the one or more additional printing devices, measuring, for each of the one or more additional printing devices (see column 4 lines 6-10 and column 6 lines 29-44), a time elapsed between sending the block to the printing device and receiving print-ready bits corresponding to the block from the printing device (see column 4 lines 6-10 and column 6 lines 29-44), and determining a number of pages to be included in the block communicated to a particular additional printing device based on the measured time for the particular additional printing device relative to the measured times for the other additional printing devices (see Fig. 4, column 6 line 45-column 7 line 21, and column 8 lines 37-59).

Barry, Utsunomiya, & Sela are combinable because they are from the same field of endeavor, dividing and processing portions of print jobs for execution.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the sending of a test document to determine the time needed

to process a block of data as described by Sela with the system of Barry and Utsunomiya.

The suggestion/motivation for doing so would have been to eliminate or reduce the need to pre-render and compress print information, reduce the memory required, and control the speed of the printer (see column 4 lines 1-3 and column 5 lines 8-31 of Sela).

Therefore, it would have been obvious to combine Sela with Barry and Utsunomiya to obtain the invention as specified in claims 7 and 11.

9. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barry and Utsunomiya as applied to claims 1, 12, and 21 above, and further in view of U.S. Patent No. 6823147 to Jackelen et al.

Regarding claim 8, Barry and Utsunomiya do not disclose expressly receiving, from one of the additional printing devices, an indication that the one additional printing device is not able to convert a block to print-ready bits and removing the one additional printing device from the one or more additional printing devices.

Jackelen discloses receiving, from one of the additional printing devices, an indication that the one additional printing device is not able to convert a block to print-ready bits (see column 4 lines 3-7 and 10-35) and removing the one additional printing device from the one or more additional printing devices (see column 3 lines 30-31, reference shows that if a mismatch occurs that the print job may be canceled, canceling a print job is analogous to removing a printer because in both cases the printer is not

used due to the mismatch, also the removal of a printer that is not able to convert the pertinent print data is an obvious step and one that is known in the art).

Regarding claim 18, Barry and Utsunomiya do not disclose expressly checking, in response to receiving the one or more portions of the document, whether the printing device can currently devote resources to converting the one or more portions (see column 4 lines 3-35), if the printing device cannot currently allocate resources to converting the one or more portions, then communicating to the other printing device an indication that the printing device cannot currently devote resources to converting the one or more portions (see column 4 lines 10-15 and 30-35), and otherwise, performing the converting and returning (see column 4 lines 16-29).

Barry, Utsunomiya, & Jackelen are combinable because they are from the same field of endeavor, processing of print jobs.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the detecting and notifying of matching and mismatching between print job attributes and printer resources as described by Jackelen with the system of Barry and Utsunomiya.

The suggestion/motivation for doing so would have been decrease the time wasted processing a print job when the printer cannot successfully execute the job (see column 1 lines 48-56 of Jackelen).

Therefore, it would have been obvious to combine Jackelen with Barry and Utsunomiya to obtain the invention as specified in claims 8 and 18.

Allowable Subject Matter

10. Claims 21-23 are allowed. The examiner believes that a principal printing device that sends a different portion of a document to each of a plurality of printing devices wherein the printing devices convert the portion of the document into print-ready format and return the portion in the print-ready format back to the principal printing device where all the portions in print-ready format will be printed distinguishes the claims from the prior art.

11. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The processing of a print job by the printer that sends portions of the job to additional printing devices and only using the returned information when it is received in a timely manner as described in claim 9 is believed by the Examiner to be an allowable limitation.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached at (571) 272-7402. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark R. Milia
Examiner
Art Unit 2622

MRM


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7/1/2010